

**Notice of Allowability**

Application No.

10/664,729

Examiner

Thoi V. Duong

Applicant(s)

TAKEDA ET AL.

Art Unit

2871

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 12/05/2005.
2. ☒ The allowed claim(s) ~~is~~ are 27-31 and 34-36.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☒ Certified copies of the priority documents have been received in Application No. 10/047,216.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 090905 & 092605
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

### **DETAILED ACTION**

1. This office action is in response to the Amendment filed December 05, 2005.

Accordingly, claim 27 was amended, claims 1-26, 32 and 33 were cancelled, and new claims 34-36 were added. Currently, claims 27-31 and 34-36 are pending in this application.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

In the title: change the title as "Liquid crystal display device comprising a second orientation control element constituted by an assembly of distinct plural orientation control elements formed between adjacent repetitions of a first orientation control element."

In the claims:

Claim 34: in line 2, delete "one" and insert --orientation control element--.

### ***Allowable Subject Matter***

3. Claims 27-31 and 34-36 are allowed.

The following is an examiner's statement of reasons for allowance: none of the prior art of record fairly suggests or shows all of the limitations as claimed. Specifically,

Re claim 27, none of the prior art of record discloses, in combination with other limitations as claimed, a liquid crystal display device comprising a first orientation

control element extending in a nonparallel direction relative to an extending direction of an edge of said pixel electrode and a second orientation control extending in a parallel direction relative to an extending direction of said edge are provided on at least one of said first and second substrates,

wherein said second orientation control element is constituted by an assembly of distinct plural orientation control elements having a same directivity in a direction of the substrate's plane surface, and

wherein said assembly is entirely formed between adjacent repetitions of said first orientation control element.

The most relevant reference, USPN 6,710,837 B1 to Song et al. (Song), fails to disclose or suggest a second orientation control element being constituted by an assembly of distinct plural orientation control elements having a same directivity in a direction of the substrate's plane surface, wherein said assembly is entirely formed between adjacent repetitions of the first orientation control element.

As shown in Figs. 17 and 18, Song discloses a first orientation control element (horizontal portion of 252 of a crossed-shaped aperture 250 or horizontal portion of protrusion pattern 170) extending in a nonparallel direction (direction 333) relative to an extending direction of an edge of said pixel electrode 200 (direction 444) and a second orientation control element (vertical portion of a protrusion pattern 170) extending in a parallel direction relative to an extending direction of said edge (direction 444) are provided on at least one of said first and second substrates (substrate 20 in Fig. 19E), wherein said second orientation control element is constituted by an assembly of plural

Art Unit: 2871

orientation control elements (protrusions of the protrusion pattern 170 connected together along the edge of the pixel electrode 200 in the direction 444) having a same directivity (direction 444) in a direction of the substrate 20's plane surface. However, said assembly is not entirely formed between adjacent repetitions of the first orientation control element.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

**Conclusion**

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached at (571) 272-2293.

Thoi Duong



02/13/2006

  
ANDREW SCHECHTER  
PRIMARY EXAMINER